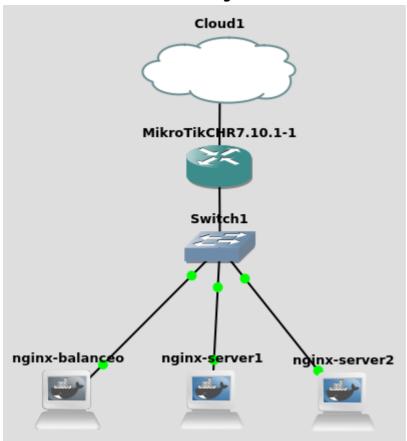
Reto4

Victor Martinez Martinez

Servidor Streaming (Con servidores nginx y un mikrotik)

Paso 1

Creamos la estructura dentro de gns3:



Hay que tener en cuenta que los servidores

tienes las siguientes ip: **Nginx_balanceador:** 192.168.0.2 **Nginx_servidor1:** 192.168.0.3 **Nginx_servidor2:** 192.168.0.4 La red ya esta configurada para que el router de mikrotik haga un forwarding a la red externa y los servidores puedan salir de la red tambien

Paso 2

En el servidor de balanceo añadiremos la siguiente configuracion en el .conf:

```
upstream backend {
   least_conn;
      server 192.168.0.3;
      server 192.168.0.4;
   }
   server {
      listen 80;
      server_name servidorbalanceador.com;
      location / {
```

```
proxy_redirect off;
    proxy_set_header X-Real-IP $remote_addr;
    proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
    proxy_set_header Host $http_host;
    proxy_pass http://backend;
}
```

La salida sera algo como esto:

```
upstream/backendr{/man/ru/man1/vim.1.gz (of link group vi) doesn't exist
update-aleast_conn; warning: skip creation of /usr/share/man/tr/man1/vi.1.gz becau
ed file serverh192.168.0.3;an1/vim.1.gz (of link group vi) doesn't exist
update-aservert192.168.0.4;/usr/bin/vim.basic to provide /usr/bin/view (view) in au
upda}e-alternatives: warning: skip creation of /usr/share/man/man1/view.1.gz becaus
d file /usr/share/man/man1/vim.1.gz (of link group view) doesn't exist
updaserver natives: warning: skip creation of /usr/share/man/da/man1/view.1.gz because
d fillisten/share80;n/da/man1/vim.1.gz (of link group view) doesn't exist
update-aserver_name servidorbalanceador.com; of /usr/share/man/de/man1/view.1.gz because
d file /usr/share/man/de/man1/vim.1.gz (of link group view) doesn't exist
update-alocationv/s{ warning: skip creation of /usr/share/man/fr/man1/view.1.gz because file /usr/sproxy_redirectn1/vimoff;z (of link group view) doesn't exist
update-alternatiproxy_set_header'p cX-Real-IPF *remote_addr;an/it/man1/view.1.gz because file /usr/sproxy_set_header'p cHosti*http_host;share/man/ja/man1/view.1.gz because file /usr/sproxy_passahttp://backend; (of link group view) doesn't exist
update-alternatives: warning: skip creation of /usr/share/man/pl/man1/view.1.gz because file /usr/share/man/
```

Y ejecutaremos **nginx -t** para comprobar si la configuracion es correcta:

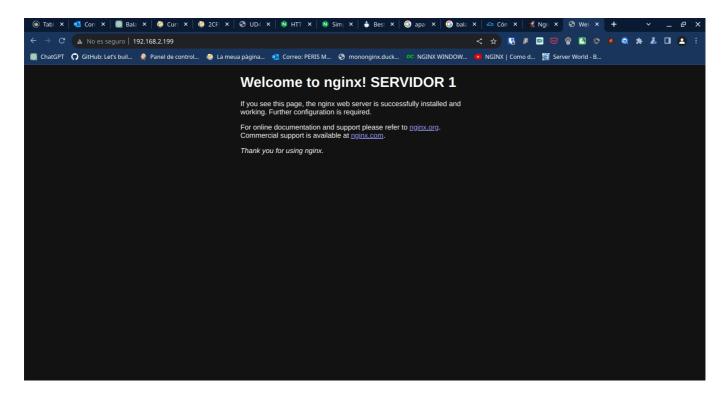
```
root@nginx-balanceo:/etc/nginx/conf.d# nginx -t
nginx:sthe configuration|fileb/etc/nginx/nginx.conf syntax is ok
nginx:gconfiguration#file//etc/nginx/nginx.conf test is successful
root@nginx=balanceo:/etc/nginx/conf.d#c
```

Paso 3

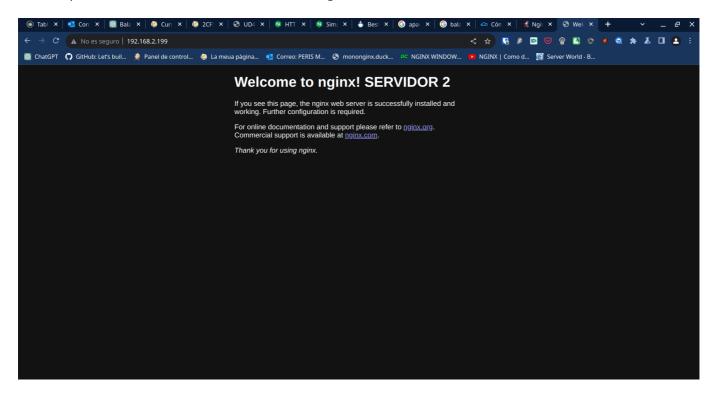
Ahora reiniciaremos el gns3 para que se reinicien todos los servicios:

Paso 4

En el navegador comprobaremos que nos envia a un servidor de nginx primeramente:



Ahora recargaremos la pagina varias veces hasta ver que cambia de pagina, de esta manera nos daremos cuenta que los servidores van balanceando la carga:



Paso 5

Si quisieramos usar otro metodo de balanceo a hash simplemente cambiaremos la segunda linea del archivo:

```
upstream backend {
   ip_hash;
   server 192.168.0.3;
   server 192.168.0.4;
```

```
server {
    listen 80;
    server_name servidorbalanceador.com;
    location / {
        proxy_redirect off;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header Host $http_host;
        proxy_pass http://backend;
}
```